

# Influenza Vaccine with Enhanced Immunogenicity

Ref. No. E-271-2011

**Keywords:** Vaccine, influenza virus, fusion peptide, influenza hemagglutinin 2 protein, HA protein.

**Collaborative Research Opportunity:** The [Eunice Kennedy Shriver National Institute of Child Health & Human Development](#) seeks parties interested in co-developing conjugated influenza vaccines with a fusion peptide region that enhances immunogenicity and may eliminate the need for annual influenza vaccinations.

**Technology:** It has been shown that the **fusion peptide**, a sequence comprised of fourteen amino acids at the N-terminal of the influenza **hemagglutinin 2 protein** is conserved among A and B **influenza viruses**. Monoclonal antibodies against this peptide are capable of binding all influenza virus **HA proteins** and inhibit viral growth by impeding the fusion process between the virus and the target cell. This application claims immunogenic conjugates comprising the fusion peptide region linked to a carrier protein. In preclinical studies, these conjugates were immunogenic and induced booster responses. The induced antibodies bound to the recombinant HA protein. This methodology of linking the highly conserved fusion peptide region to a carrier protein can broaden the protective immune response to include influenza A and B virus strains .

## Potential Commercial Applications:

- Influenza vaccines.
- Influenza diagnostics.

## Competitive Advantages:

- Universal influenza vaccine.
- Efficient manufacturing process.
- May eliminate need for yearly influenza vaccination.

**Developmental Status:** Pre-clinical, *in vivo* and *in vitro* data available.

**Patent Status:** U.S. Provisional Application No. 61/541,942 filed 30 Sep 2011

## Contact Information:

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Last Modified 02/08/2012